SPECIFICATION

Of
MLKF-8005 Cordless Optical Mouse
And
Multimedia Keyboard COMBO Set

Note:

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and

(2) This device must accept any interference received, including interference that may cause undesired operation.

Caution:

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

REV : 1.00

Prepared by MLK Technologies Limited

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Part 1.0 : General features and description

- Radio frequency : 27 MHz, single channel with 8 changeable ID for both mouse and keyboard.
- Battery suggestion: Two AA alkaline batteries for mouse, Two AA alkaline batteries for keyboard.
- The operation distance of 1.3M(typically under normal office environment)
- Mouse resolution of 400cpi counts per inch of motion.
- Mouse Sensor detects motion on all kinds of surface, including wood, plastics, pants, etc… (Highly reflective like mirror or deep dark color may not work properly)
- Compatible with windows 98/ME/2000/XP
- Keyboard come with multimedia and internet hotkeys.
- Nice feeling, light touch membrane tactile switches for keyboard

Part 2.0 : Preface

The functionality and performance requirements related to the mouse are defined in this specification.

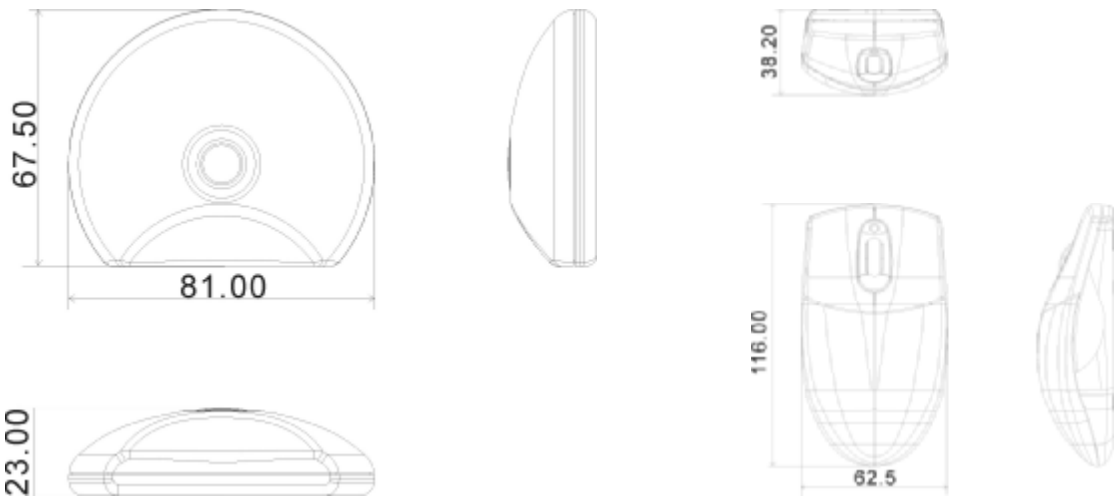
Part 3.0 : Version

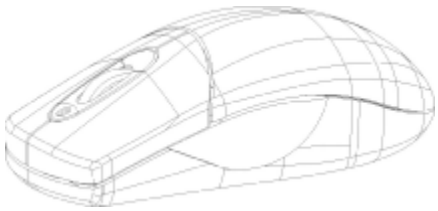
- USB Interface

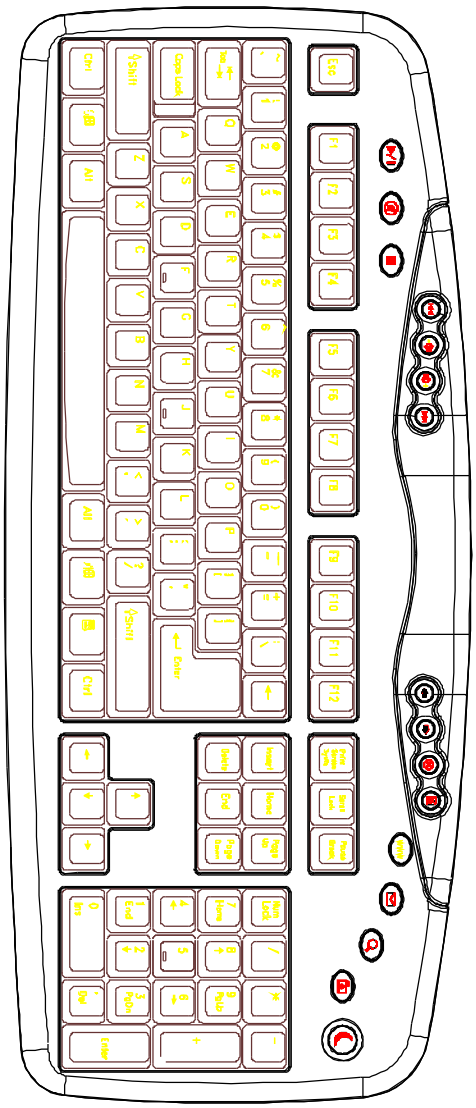
Part 4.0 : Physical characteristics and configuration

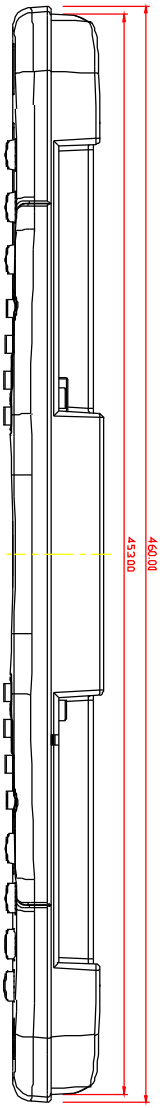
Item 4.1: Dimension

- Mouse : 116mm(L) x 62.5mm(W) x 38.20mm(H)
- Keyboard: 460mm(L) x196.09mm(W) x 41.77 mm(H)
- Receiver: 81.00mm(L) x 67.50mm x 23.00mm(H)





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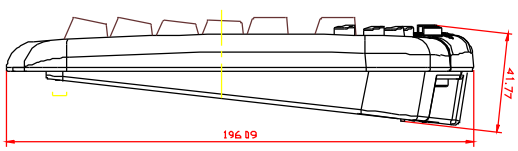
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196.09

Item 4.2: Material

Mouse	Body	ABS
	Wheel	Rubber
Keyboard	Body	HIPS
	Key-Caps	ABS
Receiver	Body	ABS

Item 4.3: Finish: Texture

Item 4.4: Color: To be defined by ID

Item 4.5: Button

Mouse: 3 Buttons, 1 CONNECT button,

Keyboard: 104/105/107/109 enhanced layout , 1 Power Management Key,
16 External Multi Media Hot Key.

Receiver: 1 CONNECT button.

Item 4.6: Mechanical Performance

4.6.1 Operating force of mouse buttons: 80g±20gf

4.6.2 Operating force of mouse browser switches: 170g ± 25gf

4.6.3 Operating force of mouse wheel scrolling: 20 ± 10gf

4.6.4 Operating force of mouse movable: 60 ± 10gf

4.6.5 Mouse weight: 140 ± 15g

4.6.6 Operating force of keyboard standard Key Top: 55 ± 12 g

4.6.7 Operating force of keyboard Hot Key : 65 ± 12 g

4.6.8 Travel Length of Keyboard Standard Key Top: 4.0 ± 0.2 mm

4.6.9 Travel Length of Keyboard Hot key: 2.6 ± 0.2 mm

4.6.10 Keyboard Weight: 730g ± 20g

Part 5.0 : Electrical specification

Item 5.1: Compatibility

- The USB mode is using the low speed interface defined in the USB specification. It's compliant to the USB specification as well as to the HID class specifications.
- The USB mode shall be compatible with IBM PC/PENTIUM and works with operating system such as Windows 98/2000/ME/XP as well as the most software applications.

Item 5.2 : Technical of mouse

Optical sensor for X/Y axis, the precise sensor detects motion on hundreds of surfaces, including wood, plastic, and even your pants leg. (highly reflective surface or deep dark color surface may not work properly) .Wheel button uses a mechanical encoder.

Item 5.3 : Sensor Report Rate on Mouse

1500 times per second

Item 5.4 : Sensor Light on mouse

Red LED

Item 5.5 : Power Requirement (Receiver)

5V/ DC 20mA directly from Computer USB Port

Item 5.6 : Cable

The length of the cable on receiver is 1.2 meters and the color is defined by ID.

Item 5.7 : Operating Angle

The mouse and Keyboard operation angle is 360 degrees.

Item 5.8 : Operating Distance

The Mouse and Keyboard operation distance is 1.3 Meter (typically under normal office environment, Mouse to Receiver set),

Item 5.9 : ID changeable

The ID is changed by the CONNECT button .

Item 5.10 Battery

5.10.1 Battery Type

The mouse and keyboard both use two AA alkaline batteries.

5.10.2 Mouse Battery Consumption

Mouse will be on sleep mode while hand off the mouse over 2 second. Mouse work again by hand touch.

Operating mode: 32mA±10% @ 3V

Stand-by mode: 15mA ±10% @ 3V

Sleep mode: 0.08mA ±10% @ 3V

5.10.3 Keyboard Battery Consumption

Keyboard will be on sleep mode while key released over 2 second. Keyboard work again by key pressed.

Operating mode: 8mA±2 mA @ 3V

Stand-by mode: 1.5mA ±10% @ 3V

Sleep mode: 0mA

5.10.4: Low Battery Indicator

When the mouse battery voltage is less than 2.2V, the indicator on front of the rubber wheel should be blinking when moving the mouse.

Item 5.11 : Mouse Tracking Speed

The unit shall be capable of tracking between 50mm/s and 254mm/s of hand movement on the matt white paper without loss of data.

Item 5.12 : LED on Receiver

The receiver unit have four LEDs

COM: Indicator for Connecting.

Num: indicator for Num Lock status

Caps: indicator for Capital Lock status

Scroll: indicator for Scroll Lock starus

Part 6.0: Reliability and environmental specification

Item 6.1 : Mouse Button Switch Activation

Conditions: 3 cycles per second.

Testing methods : a small DC motor fixed with cam automatically press the key for three time per second. The switch is connected to a calculator. The number displayed on calculator is pressed cycle of the key.

Result: key tested have a lift cycle of more than 1,000,000.00.

Item 6.2 : Cable Bending Strength

Conditions: Cable load at 100gram,

Testing methods: bend 60 degrees any direction from its centerline at speed of 30 cycles/min. 5000 cycles.

Result: No visible damage and no breakage in each wire.

Item 6.3 : Drop Shock with Bare Unit

Conditions: Drop the Unit from 76cm height onto floor.

Testing Methods: drop the unit on top, bottom and 4 side of the unit (1 time for each side).

Result: The Unit function properly, no mechanical failure.

Item 6.4 : Drop Shock in Gift box

Conditions: Unit have been packed with gift box

Testing Methods: Drop the gift box from 91cm onto a floor, on the 4 corners and 6 sides of the box (1 time for each side)

Result: no content escape from packaging.

Item 6.5 : High Temperature Test for operating pattern

Conditions: N/A

Testing Methods: Keep the unit at the temperature of 0 to 40 degrees Celsius and relative humidity of 0% to 95% for 25 hours and then left at ambient room temperature for 2 hours.

Result: the unit work properly

Item 6.6 : Heat Cycle Test for Shipment Pattern

Conditions: N/A

Testing Methods: -40 degrees Celsius to 65 degrees Celsius under 0% to 90% related humidity with total time of 40 hours, and then left at ambient room temperature for 2 hours.

Result: The unit work properly

Item 6.7 : Vibration Test

Unit shall survive a vibration within a frequency range of 10 to 200Hz at 0.015 square of g/Hz and 200 to 500 Hz at –6dB/oct for X,Y, and Z axis and 0.5 hour per aixs.

Part 7.0 : Product Compliance

Item 7.1 : Actual Compliance Label

The mouse is certified to comply with the limits for class B computing device pursuant, to subpart of part of 15 of FCC rules and CE mark.